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Please find below and/or attached an Office communication concerning this application or pr c eding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 09/088,163

Edward Mill r

Applicant(s)

Examiner

Group Art Unit

3641

Moser



X Responsive to communication(s) filed on Sep 13, 1999	
X This action is FINAL.	
☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quay/1935 C.D. 11; 453 O.G. 213.	
A shortened statutory period for response to this action is set to expire3month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).	
Disp sition of Claim	
X Claim(s) <u>9-19 and 22-37</u> is/are p	ending in the applicat
Of the above, claim(s) is/are withdr	awn from consideration
☐ Claim(s)i	s/are allowed.
	s/are rejected.
	s/are objected to.
☐ Claims are subject to restriction	or election requirement.
Applicati n Papers	·
☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.	
☐ The drawing(s) filed on is/are objected to by the Examiner.	
☐ The proposed drawing correction, filed on is ☐ approved ☐ disapprove	d.
☐ The specification is objected to by the Examiner.	
☐ The oath or declaration is objected to by the Examiner.	
Priority under 35 U.S.C. § 119	
Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).	
☐ All ☐Some* None of the CERTIFIED copies of the priority documents have been	
☐ received.	
received in Application No. (Series Code/Serial Number)	
received in this national stage application from the International Bureau (PCT Rule 17.2(a)).	
*Certified copies not received:	
Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).	
Attachment(s)	
☐ Notice of References Cited, PTO-892	
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948	
☐ Notice of Informal Patent Application, PTO-152	
SEE OFFICE ACTION ON THE FOLLOWING PAGES	

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Art Unit: 3641

- 1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 2. Claims 9-19 and 22-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford et al. in view of Chi et al., Willer and Fleming.

Bradford et al. teach the basic invention of a low energy binder of PGA with a nitroplasticizer and the other ordinary ingredients, which is formulated to have a certain energy or HEX, heat of explosion. The amounts are varied as desired to obtain the desired energy, with 8-15% nitroplasticizer, col. 2, lines 19-25, e.g. See also Example 1, col. 3, e.g. Chi et al. and Willer further teach regarding PGA. See Chi et al., col. 5, lines 1-19, teaching the preference for poly (diethylene glycol) adipate, at lines 6-8, which is another way of reciting poly(tetramethylene glycol) adipate, linear 4 x 1 instead of linear 2 x 2 (or linear 1 x 4). Although at line 10, the molecular weight is often 2000-3000, Willer teaches the general situation that the molecular weight may vary up to 20,000 at col. 3, lines 3-6. Where desired in PGA compositions, Fleming teaches the use of dicyandiamide, col. 4, line 59 reinforcing agent. Variation of amounts of plasticizer and specific, notoriously well known ingredients would have been obvious, depending of the desired result. It is well settled that optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Applicants' response has been considered. As to Chi et al., col. 5, lines 5-6, applicants must have overlooked the unambiguous teaching that "the alkylene moieties contain from 1 to

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6 carbon atoms" and that the immediately following preference is to "polydiethylene glycol", not to Poly (ethylene glycol). In terms of poly (ethylene glycol), if applicants' argument were correct, there would be no need for the "di" part, as poly [di(ethylene glycol)] is exactly equivalent to (and redundant except for requiring an even number of moieties) poly [ethylene glycol]. It is perfectly clear that in the art, abbreviations and chemical terminology inaccuracies do occur, as with PGA. However, when patentees go to the trouble to clearly specify in chemically correct and unambiguous terms what is intended, a mere attorney argument, not a declaration by a skilled artisan, e.g., the applicants, is entitled to little weight. Thus, the only correct meaning that can be applied to this Chi et al. teaching is that the glycol is a diethylene glycol, which is exactly equivalent to tetramethylene glycol, or 1,4-dihydroxybutane. Therefore, in other places where the abbreviation or acronym PGA is used, it would have at least been obvious to substitute the poly (1,4-dihydroxy-butane adipate) for PGA, assuming arguendo that PGA is not in fact said compound. Further, the exact motivation of applicants is taught, e.g., reduced energy. Still further, the prior art clearly suggests that higher molecular weight polyester oligomer may be used. These taught variables are exactly the result effective variables that the case law cited above approves of varying.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163.

Examiner Miller may normally be reached daily, except alternate Fridays, from 8:30 AM to 6 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Jordan can be reached at (703) 306-4159. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em November 11, 1999

> EDWARD A. MILLER PRIMARY EXAMINER